

# **GA – FCC & J3Tech Quiet Zone Discussion**

May 2017

V 1.0

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# Co-Founders of J3Tech

	Jim Xanthos	John Cooper
<b>MAS Experience</b>	Successfully Certified Smith & Telfair – Ga Facilities	Successfully Certified Smith & Telfair – Ga Facilities
<b>Govt Experience</b>	7 years at NSA – Office of Special Projects and Techniques (Quick Reaction Projects)	35 years at NSA, CIA, and State Dept with numerous overseas system deployments
<b>Commercial Experience</b>	11 years at Verizon and numerous years at startups and performing technical consulting	Several years of technical consulting
<b>Expertise</b>	Special Purpose Communication System development with emphasis on meeting customer requirements and equipment survivability	Special Purpose Communication System development with emphasis on meeting customer requirements and equipment survivability
<b>Education</b>	BSEE – MIT MSEE – Johns Hopkins JD – Georgetown Univ	BSEE – NCSU MSEE – NCSU Advanced Engineering - MIT



# J3Tech & Securus

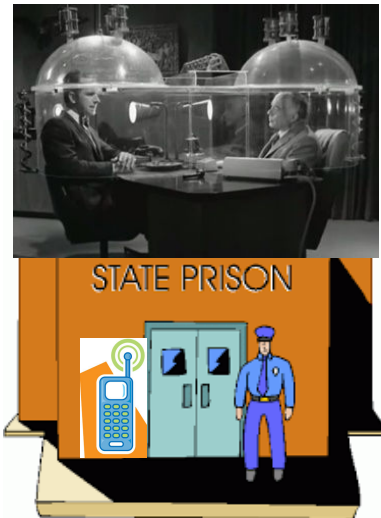


- Co-founders worked as consultants to Securus for successful MAS deployment at GA Smith & Telfair Facilities (but were not involved at all in the design and development of the MAS system)
- Co-founders no longer working as consultants to Securus
- There is still a Mutual NDA in place, therefore there will be **NO DISCUSSION** regarding the Securus MAS system



# Primary Approaches to Phone Problem

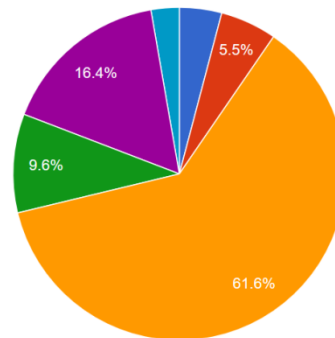
## MAS



- **Dominate** – Dominate the RF environment inside the facility to prevent handset connection to carrier network
- **Non-Interference** – No interference with the carrier signals outside the facility

## DETECTION

Mars - Detected Calls - Oct 10, 2016 - 6 AM to 11 AM

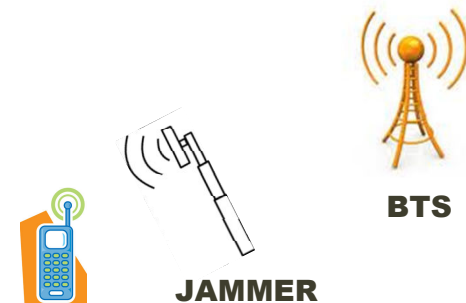


Building  
Pods

- A1
- A2
- B1
- B2
- C1
- C2

- **Detection** – Detect when and where calls are being placed (within the area of coverage)
- **Targeting** – Target the areas with the biggest phone usage to help root out the problem

## JAMMING



- **Dominate** – Dominate the RF environment inside the facility to prevent handset connection to carrier network
- **Non-Interference** – No interference with the carrier signals outside the facility
- **Legality** – Currently not legal to jam on carrier frequencies without STA



## Seven Years & Governors Concerned



May 23, 2016

The Honorable Thomas E. Wheeler  
Chairman  
Federal Communications Commission  
445 12th Street, Southwest  
Washington, District of Columbia 20554

Dear Chairman Wheeler,

We write today to encourage you and your fellow Commissioners to reevaluate the FCC's regulations regarding contraband cellphones. States must have the flexibility and authority to eradicate this real and serious threat to the public safety in our states.

Correctional officers across the country work in an environment many will never see or fully understand in terms of threats to staff and public safety. Contraband cellphones in the hands of prisoners dramatically increase these threats to witnesses, the public, the officers, their families, and even other prisoners. The FCC should act to streamline regulatory review processes and allow states to implement cost-efficient technology in prisons, where the installation of such technology will not sacrifice the safety of the general public.

We understand that what works for one state may not work for another and what may be deemed inexpensive for one state may not be cost-efficient for another. Determinations of this kind on the state level – involving the weighing of options, the analysis of budgets, and the proposals of solutions to enhance public safety – are uniquely state functions that should not be impeded by outdated federal regulations and laws.

As long as there are prisons, there will always be contraband. In the case of cellphones, we believe this is one contraband issue we can solve, but we cannot do that until the FCC acts to allow us to develop the best solutions to secure our correctional institutions.

We look forward to working with you and the FCC on this important issue.

Sincerely,

Governor Nikki Haley  
South Carolina

Governor Robert Bentley  
Alabama

Governor Nathan Deal  
Georgia

Governor Michael R. Pence  
Indiana

Governor Paul R. LePage  
Maine

Governor Phil Bryant  
Mississippi

Governor Pete Ricketts  
Nebraska

Governor Jack Dalrymple  
North Dakota

Governor Dennis Daugaard  
South Dakota

Governor Gary R. Herbert  
Utah



# Mar 2017 FCC 17-25 Report & Order

## Section C - Paragraph 123

Federal Communications Commission		FCC 17-25
Before the Federal Communications Commission Washington, D.C. 20554		
In the Matter of	)	
Promoting Technological Solutions to Combat	)	GN Docket No. 13-111
Contraband Wireless Device Use in Correctional	)	
Facilities	)	
REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING		
Adopted: March 23, 2017	Released: March 24, 2017	
Comment Date: (30 days after date of publication in the Federal Register)		
Reply Comment Date: (60 days after date of publication in the Federal Register)		
By the Commission: Chairman Pai and Commissioner O'Rielly issuing separate statements; Commissioner Clyburn approving in part, concurring in part, and issuing a statement.		
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### Quiet Zones

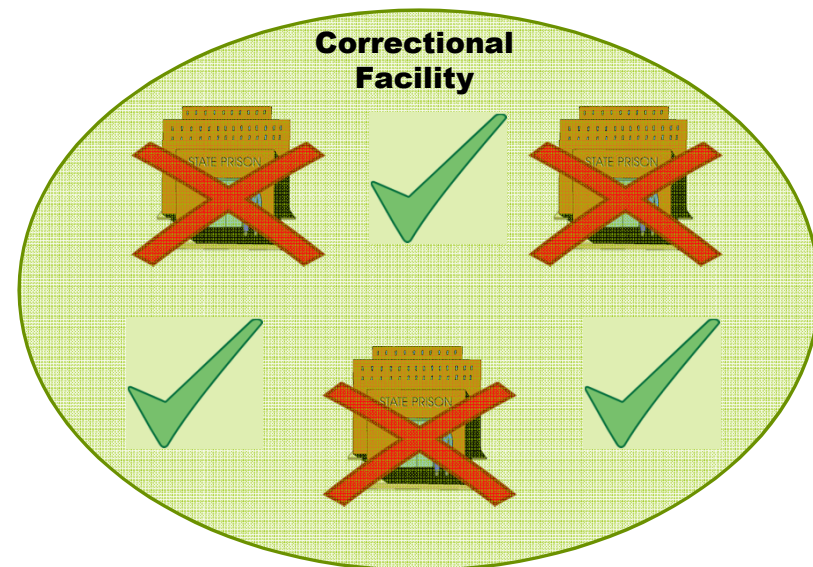


J3 Tech

### Dead Zones

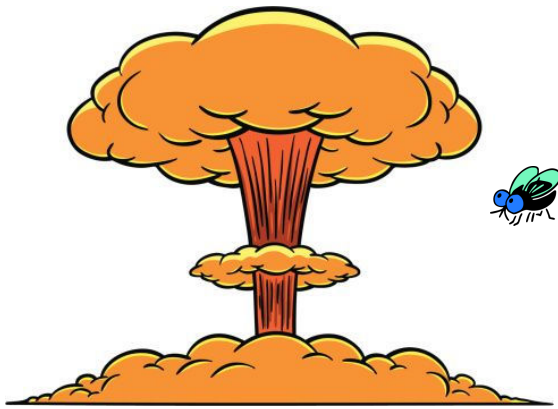


CARRIER





# Standard Jamming is NOT Right Answer

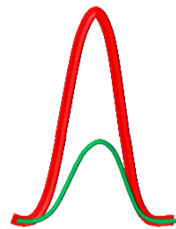


- **Too Powerful** – Like using nuclear weapons to kill a fly
- **NTIA 2010 Study** – Used 100 Watt Jammer & Results indicated that there was too much emission outside targeted area
- **Other Countries** – There have been reported instances of issues in Brazil, India, and New Zealand outside targeted area

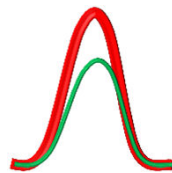
- **Dominate** – Dominate the RF environment inside the **quiet zone** to prevent handset connection to carrier network



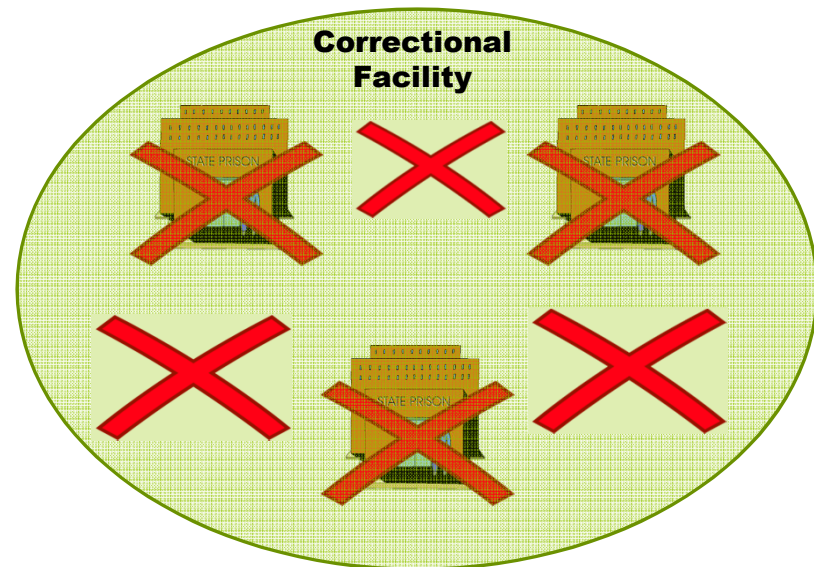
- **Non-Interference** – No interference with the carrier signals outside the **quiet zone**



**INSIDE  
Quiet Zone**



**OUTSIDE  
Quiet Zone**



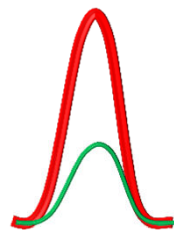


# Shielded Micro Jamming (SMJ)

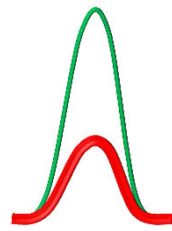


- **Targeted Power** – Strong enough to dominate the carrier signal within the quiet zone, but shielded from the outside area for non-interference
- **Calls Allowed Within Facility** – Calls are allowed within the facility outside of the quiet zone areas (and everywhere outside of the facility)
- **Selective 911** – 911 calls are allowed within the facility outside of the quiet zone areas (and everywhere outside of the facility)

- ✓ **Dominate** – Dominate the RF environment inside the **quiet zone** to prevent handset connection to carrier network

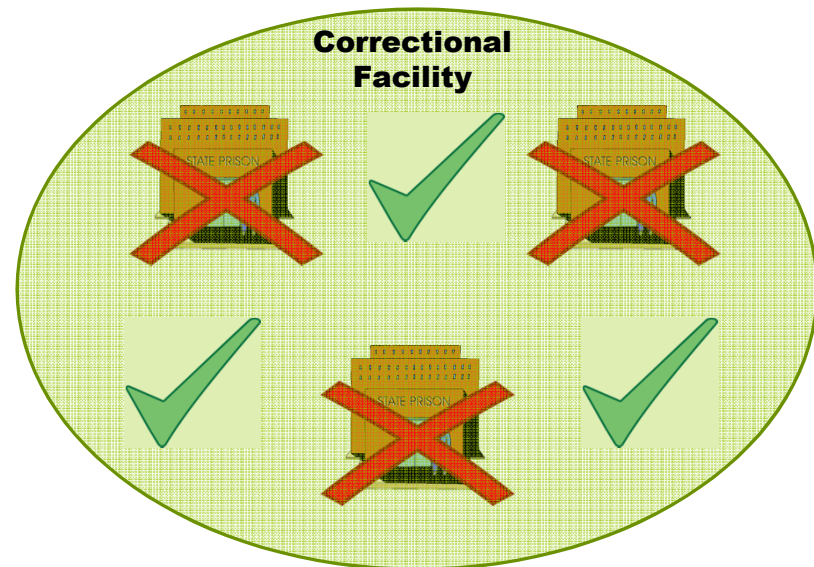


**INSIDE  
Quiet Zone**



**OUTSIDE  
Quiet Zone**

- ✓ **Non-Interference** – No interference with the carrier signals outside the **quiet zone**





## Next Steps



**Collaboration between J3Tech and FCC  
and Test with STA in an Actual GA Facility**